A STUDY OF EFFECT OF YOGIC PRACTICES ON SELECTED PHYSIOLOGICAL AND PSYCHOLOGICAL VARIABLES OF COLLEGE GOING STUDENTS

SYNOPSIS

Submitted in partial fulfilment of the requirement of the degree of

DOCTOR OF PHILOSOPHY

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Department Of Yogic Sciences, Lakshmibai National Institute of Physical Education

By

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Certificate

I hereby declare that the synopsis "**A STUDY OF EFFECT OF YOGIC PRACTICES ON SELECTED PHYSIOLOGICAL AND PSYCHOLOGICAL VARIABLES OF COLLEGE GOING STUDENTS**" being submitted in the partial fulfilment of the requirement for the degree of Doctor of Philosophy in Yogic Science under the Department of Yogic Sciences, Lakshmibai National Institute of Physical Education Gwalior - 474002 during the academic year 2021-2022.

It is a bonafide record of original work carried out under the supervision of Dr. Yatendra Kumar Singh (Associate Professor, Department of Physical Education, LNIPE, Gwalior, M.P.) and co-supervision of Dr. Kamta Prasad Sahu (HOD, Department of Yogic Sciences and Human Consciousness, Dev Sanskriti Vishwavidyalaya, Haridwar, U.K.) and has not been submitted in full or part to any other university or institute for a degree or diploma.

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ABSTRACT

This study will explore the effect of yogic practices on selected physiological and psychological variables among college-going students. In the future academic environment, students are likely to experience physical and mental stress, which may impact their overall well-being. The purpose of this study will be to assess how a structured yoga regimen will influence key physiological parameters—breath holding capacity, anaerobic capacity, resting pulse rate, systolic blood pressure, and diastolic blood pressure—as well as psychological dimensions including personality traits, personal effectiveness, and adjustment. A pre-test and post-test control group design will be used. The experimental group will undergo a systematic yogic program involving asanas, pranayama and meditation over a specific duration, while the control group will follow their routine activities without intervention. Post-intervention results are expected to indicate significant improvement in the experimental group's physiological variables, such as increased breath holding and anaerobic capacity, and reduced pulse rate and blood pressure levels. Psychologically, students are also expected to show positive development in personality traits, greater personal effectiveness, and better adjustment abilities. These outcomes will suggest that regular yogic practice can enhance physical health and promote psychological balance and personal growth. The findings will highlight the potential of yoga as an effective, holistic intervention for fostering overall well-being among college students.

KEYWORDS: Yogic practices, College students, Physiological variables, Psychological Variables, Personality Traits, Adjustment, Personal Effectiveness

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CHAPTER-I (Introduction)

a. Brief Introduction of the Topic

Yoga is a traditional, cultural and experiential science of India. It is the most valuable inheritance of the present. It is the essential need of today and the culture of tomorrow. All yogis said that Yoga is the science of right living, as such, is very important to be incorporated in daily life. It works on all aspects of the person: the physical, mental, emotional, vital, psychic and spiritual. The word yoga means 'unity' or 'oneness' and is derived from the Sanskrit word yuj, which means 'to join'. This unity or joining is known in spiritual terms as the union of the individual consciousness with the universal consciousness. On a practical level, yoga is a means of balancing and harmonizing the body, mind and emotions. Yoga is a physical, mental, and spiritual practice. It includes the practice of yama (personal ethics), niyama (social ethics), asana (physical postures), pranayama (breathing exercises), pratyahara, dharna, dhyana (science of relaxing the mind) and samadhi.

Notably, yoga has been shown to have immediate psychological benefits, decreasing anxiety and stress, and increasing feelings of emotional and social well-being. Schools, workplaces, civil society organizations and communities should consider incorporating yoga into daily activities, supporting each country's mission to achieve a 15% relative reduction in physical inactivity by 2030 – the Sustainable Development Goal (SDG) target (Singh, 2022).
Yoga is a valuable tool to increase physical activity and decrease non-communicable disease (By Dr Poonam Khetrapal Singh, 2018).

Swami Sivananda Saraswati of Rishikesh explained yoga as an" integration and harmony between thought, feeling and deed, or integration between head, heart and hand". Through the practices of yoga, awareness develops of the interrelation between the emotional, mental and physical levels, and how a disturbance in any one of these affects the others. Gradually, this awareness leads to an understanding of the more subtle areas of existence.

Hatha yoga, ashtanga yoga, bhakti yoga, mantra yoga, dhyana yoga, karma yoga, raj yoga appear like different types of yoga due to their different methods and techniques but the main objective of all of them is liberation, salvation or to attain samadhi, the highest state of chitta (consciousness) by controlling its brittis (tendencies, desires) arising in it, out of

attachment with the materialistic world, so as to merge into the divine principle. absolute Yoga is one of the six great philosophies of India. It is an experiential science.

b. Emergence and justification of the problem

College students are a diverse group of individuals enrolled in higher education institutions, pursuing degrees or certifications in various fields of study. They can be traditional students, typically aged 18-22, who transition directly from high school, or non-traditional students, often older, who might be balancing education with work or family responsibilities. College students come from varied backgrounds, including domestic and international origins, bringing a wide range of perspectives and experiences to campus. They engage in a mix of academic pursuits, such as attending lectures, completing assignments, and conducting research, alongside extracurricular activities like clubs, sports, and volunteer work. Many also juggle part-time or full-time jobs to support their education and gain work experience. Despite the enriching experiences, college students face challenges including academic pressure, financial constraints, social adjustments, and mental health issues. Colleges and universities offer resources like academic advising, mental health counselling, financial aid, and career services to help students navigate these challenges and succeed in their academic and personal lives.

College students often encounter a range of problems that can significantly impact their academic performance and overall well-being. One of the primary challenges is managing academic pressure, as students strive to meet high expectations and handle a heavy workload of assignments, exams, and projects. Financial difficulties also pose a major issue, with many students struggling to afford tuition, textbooks, and living expenses, often leading them to take on part-time jobs that can further strain their time and energy. Social and personal issues, such as homesickness, relationship challenges, and the pressure to fit in, add to their stress. Additionally, mental health concerns, including anxiety, depression, and burnout, are prevalent among college students, exacerbated by the demands of balancing academics, work, and personal life. Sleep deprivation and unhealthy lifestyles can further undermine their physical health. To support students, institutions provide resources like counselling services, financial aid, academic support, and wellness programs, yet the effectiveness of these resources depends on the students' awareness and willingness to seek help.

Yoga positively impacts college students by addressing both their mental and physical challenges. It helps reduce stress and anxiety through relaxation techniques, improving focus and concentration for academic success. Regular practice enhances mood and alleviates depression, promoting better mental health. Physically, yoga improves sleep quality and boosts energy levels, aiding in better time management and overall productivity. It also fosters physical fitness, reducing the risk of injuries. Socially, yoga builds self-awareness and emotional management, enhancing relationships and providing a sense of community. By integrating yoga into their routines, students can achieve a balanced lifestyle, effectively mitigating the common problems they face.

c. Statement of the problem

The Purpose of the study to find out the Effect of Yogic Practices on selected physiological and psychological variable on college going students.

d. Objectives of study

The research work has been carried out with the following objectives in perspective:

1. To the study whether there will be no significant difference between breath holding capacity of control group and experiment group after twelve weeks yoga practices.
2. To the study whether there will be no significant difference between anaerobic capacity of control group and experiment group after twelve weeks yoga practices.
3. To the study whether there will be no significant difference between resting pulse rate of control group and experiment group after twelve weeks yoga practices.
4. To the study whether there will be no significant difference between systolic blood pressure of control group and experiment group after twelve weeks yoga practices.
5. To the study whether there will be no significant difference between diastolic blood pressure of control group and experiment group after twelve weeks yoga practices.
6. To the study whether there will be no significant difference between personality traits of control group and experiment group after twelve weeks yoga practices.
7. To the study whether there will be no significant difference between personal effectiveness of control group and experiment group after twelve weeks yoga practices.

8. To the study whether there will be no significant difference between adjustment of control group and experiment group after twelve weeks yoga practices.

e. Research Question

- How Yogic Practices affects selected physiological and psychological variables of college going students?

f. Delimitations

- 100 subjects will be selected from Rustamji institute of Technology Tekanpur Gwalior.
- The Age Range of participants will be 18 to 22.
- The training duration will be delimited to a period of 12 weeks.
- This study will be delimited to these yoga practices: Sukshma-Vyayama, Suryanamaskara, Asana, Relaxation, Pranayama, Meditation, Yogic Counselling.

- This study will be Delimit to the Physiological Variables-

    1. Breath Holding Capacity
    2. Anaerobic Capacity
    3. Resting Pulse Rate
    4. Systolic Blood Pressure
    5. Diastolic Blood Pressure

- This study will be further delimited to the psychological variables-

    1. Personality Traits
    2. Personal Effectiveness
    3. Adjustment Inventory

g. Limitations

1. Regular activities pertaining to their day to day routine are not under control of researcher.

2. The cultural and environmental factors of the subjects were be ignore.

3. Factors like diet, habits, training schedule which may have influenced the results of the study were not taken in to consideration.

4. The disparity prevailing in internal and external factors, which have discouraged or motivated the subjects during testing, could not be controlled.

h. Hypothesis

1. There will be no significant difference between **breath holding capacity** of control group and experiment group after twelve weeks yoga practices.
2. There will be no significant difference between **anaerobic capacity** of control group and experiment group after twelve weeks yoga practices.
3. There will be no significant difference between **resting pulse rate** of control group and experiment group after twelve weeks yoga practices.
4. There will be no significant difference between **systolic blood pressure** of control group and experiment group after twelve weeks yoga practices
5. There will be no significant difference between **diastolic blood pressure** of control group and experiment group after twelve weeks yoga practices.
6. There will be no significant difference between **personality traits** of control group and experiment group after twelve weeks yoga practices.
7. There will be no significant difference between **personal effectiveness** of control group and experiment group after twelve weeks yoga practices.
8. There will be no significant difference between **adjustment** of control group and experiment group after twelve weeks yoga practices.

i. Definition and explanation of terms

Variables

- **Independent variable (IV):** Selected Yoga Practices will be the independent variable which includes-

  Sukshma Vyayama, Suryanamaskara, Asana, Relaxation, Pranayama, Meditation, Yogic Counselling

- **Dependent variable (DV):**

- the physiological variables -

    1. Breath Holding Capacity
    2. Anaerobic Capacity
    3. Resting Pulse Rate
    4. Systolic Blood Pressure
    5. Diastolic Blood Pressure

- the psychological variables -

    1. Personality Traits
    2. Personal Effectiveness
    3. Adjustment Inventory

Yoga

The word "yoga" comes from the Sanskrit root "yuj", which means "to join" or "to yoke". Yoga is a practical aid, not a religious practice. Yoga is an ancient art based on a harmonizing system of development for the body, mind, and spirit. The continuous practice of yoga will lead to a sense of peace and well-being, and also a feeling of being at one with their environment. This is a simple definition about yoga.

Asanas

These are special patterns of postures that stabilize the mind and the body through stretching. Their aim is to establish the proper rhythm in the neuromuscular tonic impulses and improve the general muscle tone.

Surya Namaskar

Surya Namaskar or sun salutation is a traditional Indian yogic practice series of 12 physical postures. These postures encompass periodic forward and backward bending along with deep exhalation and inhalation respectively to the maximum possible extent. The 12 different asanas of Surya Namaskar and their Bija mantra are following

Pranayamas

These are practices which bring control over the respiratory impulses, is one of the channels of autonomic nerve impulses. The main purpose of Pranayama is to gain control over the autonomic nerve system and through it influence the mental function.

Meditation

Meditation is a practice that involves training the mind to achieve a state of deep relaxation, heightened awareness, and inner peace. It has been practiced for thousands of years in various spiritual traditions and has many benefits, including reducing stress, enhancing concentration, and improving overall well-being.

Soham Meditation

Soham meditation is a powerful and simple form of mantra meditation derived from ancient Indian spiritual practices. It is based on the natural sound of breath and is often associated with Advaita Vedanta and other meditative traditions.

How Soham Meditation Works:

- **Meaning of Soham**: "Soham" is a Sanskrit mantra that means "I am That" (where "That" refers to the universal consciousness or divine presence).
- **Breath Connection**: The mantra aligns with the natural sound of breathing:
    - "So" (inhale)
    - "Ham" (exhale)

Yogic Counselling

Yogic Counselling is a holistic therapeutic approach that integrates yogic philosophy, mindfulness, and psychology to help individuals manage stress, emotions, and life challenges. It is rooted in ancient yogic wisdom and modern psychological principles,

promoting overall well-being through self-awareness, self-regulation, and self-transformation.

Sankalp of Self acceptance by *swadhyay* (self actualization)

Sankalp of Environmental mastery by developing quality like a *yogi. (ramvanvas)*

Sankalp of Positive relations by *chitta prasadan* (*maitri, karuna, mudita, upeksha*)

Sankalp of Personal growth by developing *utsah, sahas, dhairya*

Sankalp of being Autonomous by enhancing self confidence.

Sankalp of self realization for making purpose in life

j. Purpose & Significance of the study

This study will provide empirical evidence on the benefits of yoga in improving the physical and mental health of college students. The findings may contribute to policy recommendations for integrating yoga into the academic curriculum to enhance students' overall well-being. This study is significant as it underscores the holistic benefits of yoga, promoting both physical and mental well-being among college students. By validating the positive effects of yogic practices, the research can lead to widespread acceptance and implementation of yoga programs in educational institutions, ultimately fostering a healthier, more resilient generation of young adults. It may act as a guideline for the students of any institute

Chapter-II (Review of Related Literature)

The previous chapter provided the background of the research, highlighted the research problems, issues, conceptual framework and scope of the study, while justifying the importance of the study. The present chapter addresses the current state of research and existing knowledge pertaining to big five personality traits and Integrated Approach of Yoga Therapy. A number of researchers in the past expressed their views on the various aspects of organizational behaviour; including personality traits and Integrated Approach of Yoga Therapy. Several researches, surveys, projects and committees have produced learned works in the form of articles in journals, reports and guidelines on the subject. This research work will consider all such studies organized in the past. Here, some of the works are being considered in an illustrated manner, as follows:

(**Basumatary, 2016)** *"Comparative study of personality traits between yoga students and other students"* The purpose of the study was to compare the personality traits between yoga students and other students. The study involved a total of 800 undergraduate and postgraduate, male and female students from different universities of North Zone India were selected. Among them, 400 students (male-200, female-200) who were pursuing professional Yoga degree course were chosen from Haridwar studying in Gurukul Kangri University, University of Patanjali and Dev Sanskriti University. Similarly, 400 (male-200, female-200) Non-Yoga students were selected from Delhi University. The age of the subjects ranged from 17 to 24 years. For assessing personality traits of Yoga and Non-Yoga students "Big Five Inventory" by John, O. P., & Srivastava, S. (1999) was used. Two-Way ANOVA was employed at 0.05. Results of the study revealed, Yoga students have higher mean value in, Extraversion, Agreeableness, Conscientiousness, Openness and lesser mean value in Neuroticism than Non-Yoga students. Among the male students' significant difference was found in Agreeableness, Conscientiousness, Neuroticism and Openness. Among Female Students significant difference was found in Extraversion, Conscientiousness, Neuroticism and Openness. Further the Two-Way ANOVA revealed that only the practice of Yoga significantly effected in the personality traits of students.

Baro and Buragohain (2014), a comparative study of personality traits between Physical Education and General Education Teachers of Assam. For the purpose of the study 50 each male teachers of Physical Education and general education were selected from the different

parts of Assam. Personality traits were assessed by Eysenck personality questionnaire (EPQR-S). To compare personality trait t-test was employed and the results revealed that no significant difference in personality traits between physical education teachers and the general teachers but, however, it is found that physical education teacher is more extrovert than a popular teacher.

Zare et al. (2015), did a comparative study on life expectancy and personality traits between athletes and non-athletes. For the purpose of the study 50 sports women and 50 non-sports women were randomly selected from Kerman city of Iran. To assess life expectancy Hope scale questionnaire was used and for personality trait (NEO-FFI) was used. Mean, SD and t ratio was used as the statistical technique was used. Results reveal a significant difference in life expectancy but in personality traits, an important difference was found only in conscientiousness and openness to experience.

Madanmohan et al. (1992) determined effect of yoga training on visual and auditory reaction times (RTs), maximum expiratory pressure (MEP), maximum inspiratory pressure (MIP), 40 mmHg test, breath holding time after expiration (BHT exp), breath holding time after inspiration (BHT insp), and hand grip strength (HGS). For study purpose twenty seven (N=27) student volunteers were selected as the subjects. They were given yoga training for 12 weeks. The selected variables were tested before and after the yoga training. Results of the study showed that yoga training for 12 weeks creates significant diminution in visual and auditory reaction times and significant improvements in respiratory pressures, breath holding times and hand grip strength. The study results support that regular yoga training makes us physically and physiological strong.

Ray et al. (2001) observed the positive effect of yogic practices during training period on the young trainees. Total 54 young trainees were selected for the study. Their age ranged between 20-25 years. They were divided randomly in two groups i.e. yoga training group and control group. Yoga training group (23 males and 5 females) was administered yogic exercises for the first 5 months of the training while control group (21 males and 5 females) did not perform any exercises during this period. From the 6th to 10th month of training both the groups participated in the yoga practices. Physiological parameters like heart rate, blood pressure, oral temperature, skin temperature in resting condition, responses to maximal and submaximal exercise, body flexibility were selected and recorded. Psychological parameters like personality, learning, arithmetic and psychomotor ability and mental well-being were

also recorded for evaluation. Selected parameters were taken before and during the 5th and 10th month of training period. In starting there was relatively higher sympathetic activity in both the groups due to the new work/training environment and conditions. Later on the 5th and 10th month, the experiment group (Yoga) had relatively lower sympathetic activity than the control group. The results of the study showed that there was considerable improvement in performance at submaximal level of exercise and in anaerobic threshold in the yoga group. Shoulder, hip, trunk and neck flexibility improved in the yoga group. There was significant improvement in various psychological variables like diminution in anxiety and depression and better mental function after participating in yoga training

Clay et al. (2005) determined the metabolic and heart rate (HR) responses of hatha yoga. To achieve the purpose total 26 women were selected as the subjects. Their age ranged between 19-40 years. They performed 30-minute hatha yoga exercises of supine lying, sitting, and standing asanas. Subjects were followed the same videotaped sequences of hatha yoga asanas. The intensity of hatha yoga may be too low to construct a training stimulus for enhancing cardiovascular fitness. Although previous research suggests that hatha yoga is an acceptable form of physical activity for enhancing

Bhowmik and Kumar (2020) evaluated the outcome of yoga training on resting heart rate (RHR), peak expiratory flow rate (PEFR) and body mass index (BMI) among rural school boys of West Bengal and Western Uttar Pradesh (W.U.P.). Total twenty (20) rural school boys (height 1.45 ± 0.06 mts and weight 41.42 ± 7.47 kg) of West Bengal state and 20 rural school boys (height 1.46 ± 0.05 mts. and weight 42.32 ± 6.76 kg) of Western Uttar Pradesh state were randomly selected as subjects of the study. All subjects were students of the class 6th to 8th. Subjects of both places participated in yoga training for 16 weeks period. The resting heart rate, peak expiratory flow rate and body mass index (BMI) were measured before and after training treatment. The data was analyzed by using ttest and significant level was set at $p < 0.05$. Results of the study showed that after the yoga training resting heart rate significantly reduced, Peak expiratory flow rate significantly improved and BMI no changed between the school boys of W.B and W.U.P. Conclusion: the same yoga training significantly reduced resting heart rate and improved peak expiatory flow rate between class 6th to 8th standard students of different civilizing and geographical areas in India.

Banerjee et al. (2019) determined the effects of yoga training on physical health and various hematological parameters. To achieve the purpose of the study thirty five healthy individuals

(19 Male and 16 Female) selected as the subjects. The age group of subjects were 18 to 45 years participated in the study. They were divided in the study group and the control group. Both groups had same number of subjects in order to minimize the perplexing factors. After a written informed consent, the subjects underwent various types of yoga exercises for 90 days under supervision of qualified yoga trainer. Impact of yoga on body mass index (BMI), pulse rate, blood pressure (BP), and haematological parameters like hemoglobin percentage, white blood cell (WBC) count, platelet count, were taken under 53 consideration prior and after yoga training. Paired t-test was used for statistical analysis. It was observed in the results of the study that BMI, systolic and diastolic BP, and Hb% changed after yoga training significantly. WBC and platelets showed improvement in values after yoga practice but it was statistically nonsignificant. This study results shows that yoga has beneficial effects on health. The addition of regular yoga exercises with modern medicine in resource-strained public health systems might play a very vital role to provide us a holistic health care.

Sutar et al. (2016) *Effect of Yoga on Anaerobic Capacity in Young Adults*. This study involved a group of young adults who participated in a yoga training program for 12 weeks. The program included various asanas, pranayama, and meditation practices. Anaerobic capacity was measured using the Wingate Anaerobic Test (WAnT) before and after the intervention. The study reported a significant improvement in anaerobic capacity, as evidenced by increased peak power and mean power outputs in the WAnT. The authors suggested that the enhanced muscle strength and endurance resulting from yoga practice contributed to these improvements.

Mandanmohan et al. (2003) *Effect of Yoga Training on Aerobic and Anaerobic Power in School Children*. School children aged 10-15 years participated in a yoga training program for six months. The program included daily sessions of asanas and pranayama. Anaerobic capacity was assessed using the 50-meter dash and standing broad jump tests. The study found significant improvements in the anaerobic performance of the children, with better sprint times and increased jump distances. These findings indicated that yoga training could enhance anaerobic power in young individuals by improving muscle coordination and strength.

Sharma et al. (2011) *Effect of Yoga on Heart Rate and Respiratory Rate in Subjects above 40 Years of Age*. This study included 45 participants over 40 years old who engaged in a 10-

week yoga program. The program consisted of asanas, pranayama, and meditation practices. RPR was measured at the start and end of the intervention. There was a significant decrease in RPR, with an average reduction of 6 bpm. The study concluded that yoga could effectively reduce heart rate and improve autonomic regulation in older adults.

Telles et al. (1993) *Reduction in Blood Pressure Following Yoga-Based Relaxation Techniques*. This study involved 20 patients with mild to moderate hypertension who participated in yoga-based relaxation techniques for six weeks. Blood pressure was measured at the beginning and end of the intervention period. The study observed significant reductions in both systolic and diastolic blood pressure. The mean reduction in systolic pressure was 8 mmHg, and in diastolic pressure was 5 mmHg. The authors concluded that yoga-based relaxation techniques could effectively reduce blood pressure in hypertensive patients.

Singh and Jain (2012) *Effect of Yoga on Assertiveness and Confidence among Students*. The study included 60 students who participated in a six-month yoga program. Assertiveness and confidence levels were assessed using standardized scales before and after the intervention. The results showed significant increases in both assertiveness and confidence. Students reported feeling more self-assured in social situations and better equipped to express their opinions. The authors suggested that yoga could be a valuable tool for enhancing personal effectiveness in educational settings.

Nanda et al. (2014) *Yoga and Its Influence on Patience, Optimism, and Perseverance*. This study involved 70 adults who participated in a four-month yoga program. Personal effectiveness domains were measured using a tailored questionnaire before and after the intervention. Participants exhibited significant improvements in patience, optimism, and perseverance. The study highlighted the role of yoga in fostering a more patient and optimistic mindset, along with a greater ability to persist in the face of challenges.

Patel et al. (2015) *Yoga and Its Impact on Psychological and Social Adjustment*. This study involved 70 participants who engaged in a structured yoga program for four months. The Five Adjustment Inventory was administered before and after the program. Participants showed significant improvements in health, social, and emotional adjustment. Home and educational adjustment also showed positive changes. The authors concluded that yoga could effectively enhance psychological and social adjustment.

Gupta et al. (2016) *Influence of Yoga on Adjustment and Stress Levels among School Teachers*. The study included 50 school teachers who participated in a three-month yoga program. Adjustment levels were assessed using the Five Adjustment Inventory pre- and post-intervention. Significant improvements were noted in emotional and health adjustment. Social and home adjustment also showed positive changes. The study emphasized the potential of yoga in reducing stress and enhancing adjustment among school teachers.

Conclusion

The literature indicates that yogic practices positively impact both physiological and psychological variables among college students. Improvements in breath-holding capacity, anaerobic capacity, resting pulse rate, and blood pressure, alongside enhancements in personality traits, personal effectiveness, and adjustment, highlight the comprehensive benefits of yoga. Future research should focus on large-scale, longitudinal studies to further validate these findings and explore the mechanisms underlying these benefits.

Chapter-III (Procedure)

a. Selection of subjects

A pre-post quasi-experimental design will be used for the present study. An initial sample of 100 students will be taken. Further it will be divided into two groups experimental and control with 50 students each. The duration of the training period will be 12weeks comprising of five sessions per week, and each session will take 40-45 minutes. Pre-test and post-test will be given to the both experimental and the control groups.

Pre-test: During the pre-test, students will respond to physiological and psychological variables to prepare their baseline scores. After screening, those students who scored low will be selected and allocated to intervention i.e. Yoga. In addition to that, the subjects will be further divided into two groups, experimental and Control.

Training: During the training phase, the experimental group will receive Yoga training. The duration of the training period would be 12 weeks comprising five sessions per week, and each session took 40-45 minutes.

b. The Training contents will be as follows:

Group	**Pre Test**	**Intervention**	**Post Test**
Experimental Group(50)	Pre-test	12 weeks Yoga Intervention	Post-test
Control Group(50)	Pre-test	No Intervention	Post-test

c. Criterion measures

Selected Variables	Units	Test and Equipment
1. Breath Holding time	Seconds	Stop watch
2. Anaerobic capacity	Sec	50 mtr dash / stopwatch
3. Resting pulse rate	Beats/minute	Stop watch
4. Systolic blood pressure	MmHg	Stethoscope and Sphygmomanometer
5. Diastolic blood pressure	MmHg	Stethoscope and Sphygmomanometer
6. Personality trait	180 Items	Dr. Arun Kumar Singh and Dr. Ashok Kumar (Big Five personality inventory)
7. Personal effectiveness	39 Items	Santosh Dhar & Upinder Dhar. (Personal Effectiveness Scale)
8. Adjustment	102 Items	A.P.K. Sinha and R.P.Singh . (adjustment inventory for college students)

d. Yoga Intervention training detailed program.

S.No.	Name of yoga	1 to 4 week		5 to 8 week		9 to 12 week	
		Duration	Rest	Duration	Rest	Duration	Rest
1.	Sukshma Vyayama	5 Minutes					
2.	Suryanamaskara	6 round (9 min)	1min	9 round (9 min)	1min	12 round (9 min)	1 min
3.	Tadasana	30 Sec	30 Sec	40 Sec	20 Sec	50 Sec	10 Sec
4.	Ardhachakrasana	30 Sec	30 Sec	40 Sec	20 Sec	50 Sec	10 Sec
5.	Padashthasana	30 Sec	30 Sec	40 Sec	20 Sec	50 Sec	10 Sec
6.	Vakrasana	30 Sec	30 Sec	40 Sec	20 Sec	50 Sec	10 Sec
7.	Sarvangasana	30 Sec	30 Sec	40 Sec	20 Sec	50 Sec	10 Sec
8.	Saral matsyasana	30 Sec	30 Sec	40 Sec	20 Sec	50 Sec	10 Sec
9.	Uttanpadasana	30 Sec	30 Sec	40 Sec	20 Sec	50 Sec	10 Sec
10.	Markatasana	30 Sec	30 Sec	40 Sec	20 Sec	50 Sec	10 Sec
11.	Bhujangasana	30 Sec	30 Sec	40 Sec	20 Sec	50 Sec	10 Sec
12.	Dhanurasana	30 Sec	30 Sec	40 Sec	20 Sec	50 Sec	10 Sec
13.	Relaxation(DRT)	5 Min					
14.	Soham Dhyan	5 Min					
15.	Bhastrika Pranayama	15 round	1 min	20 round	1min	25 round	1 min
16.	Bhramari Pranayama	5 round	2 min	7 round	3 min	10 round	5 min
17.	Yogic counselling	1topic/day	5 min	1topic/day	5min	1topic/day	5min

Post-test: At the conclusion of the 12-week period, post-test data will be collect using the same tools and procedures as the pre-test. This allowing for direct comparisons and analysis of changes in the measured variables.

e. Statistical Technique employed in study

For Descriptive analysis mean and standard deviation will be used. For differential analysis T test will be applied to compare pre-post data of Experimental and Control group by using SPSS.

f. Expected Outcome

It is anticipated that the experimental group receiving the 12-week structured yoga training will demonstrate significant improvements in both physiological and psychological variables compared to the control group. Physiologically, students are expected to show enhanced breath holding capacity and anaerobic capacity, along with reductions in resting pulse rate, systolic blood pressure, and diastolic blood pressure. Psychologically, participants in the experimental group are expected to exhibit positive changes in personality traits, increased personal effectiveness, and better adjustment skills. These outcomes will support the hypothesis that regular and systematic yogic practices contribute to improved physical health and psychological well-being among college-going students.

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